

Applicant: Hage
Serial No.: 10/635,812
Group Art Unit 1714

PATENT
Docket No.: 110000-9410

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

[007] It is, therefore, one objective of the present invention to provide an ophthalmic lens marking ink for printing a mark on a surface of a lens, eliminating any potential for a ghost image, having adequate adhesion, and being easy to remove, along having with other advantages.

[018] The emulsion polymerization for preparing the latex binder may employ a charge stabilizing emulsifier, a steric stabilizing emulsifier, or both, in order to obtain adequate solution stability and the desired particle size. Particularly, the latex binder has an average particle size from about 150 nm to about 350 nm, and more preferably from about 200 nm to about 300 nm, and most preferably from about 250 nm to about 280 nm. The emulsifier is also useful in controlling the surface energy of the latex binder so that the latex will have -a- proper wetting, film formation behavior, and resolubility. Various emulsifiers may be used such as are commonly employed for emulsion polymerization, including, but not limited to a fatty acid ether sulfate. The emulsifier may be employed in conventional amounts and preferably in an amount of from about 0.1% to about 5.0% by weight of the emulsion polymerization components.

[021] The vehicle of the waterborne ink composition of the present invention may also contain other additives such as surfactants, transfer aids, or thixotropic agents. A surfactant is used to improve the wetting of the ink on the substrate surface. Nonionic surfactants such as the acetylenic alcohols, whether monohydric or dihydric, such as those that are available from Air Products and Chemicals of Allentown, PA, and perfluorinated surfactants are especially desired. Examples of perfluorinated surfactants include FC-430 from 3M, MN, Zonyl FS0-100 from DuPont, Bayonet Bayonet FT 719 from Bayer and Polyfox 636 ~~fre~~ from Omneva OMNOVA Solutions. The surfactants may be employed in conventional amounts and preferably in an amount of from about 0.1% to about 10.0% by weight, and more preferably 5.0% by weight, based upon the vehicle composition.

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[024] A wide variety of coloring agents such as pigments, dyes, or other colorants may be used alone or in combination in the ink compositions of the present invention. Pigments that are suitable for use in the present ink compositions include, but are not limited to, titanium oxides, chromates, zinc oxides, iron oxides, and carbon black. Dyes that are suitable for use in the present ink compositions include, but are not limited to, condensed azo dyes, chelate azo dyes, phthalocyanines, anthraquinones, quinacridones, thioindigoids, isoindolinones, quinophthalones, and nitro dyes. Preferred colors are white, red, blue, yellow, green, and black. Titanium dioxide is especially especially preferred by virtue of the brightness, whiteness, opacity, and hiding power that it possesses, which are important for the use of an automatic inspection system. Other colors may be used for trade names, company names, trademarks, logos, and other forms of branding.

Between paragraph [031] and paragraph [032], please insert the following new heading:

EXAMPLES

[032] The following Comparative Example and Example illustrate the present invention more specifically. The present invention will now be described in more detail in reference to examples, which These examples are for illustration purposes only and should not in any way be construed as a limitation upon the scope of the invention.

[033] Comparative Example:

[033] A polycarbonate progressive lens is washed with an aqueous detergent solution at 125F containing 1.0 percent by weight anionic detergent in water. The lens is dried using air knives in conjunction with forced warm air. The lens is then treated with corona discharge from a Multidyne corona treating unit from Softal 3DT. Using a model PI/290-A2 pad printing machine from Printing International, a Type G solventborne acrylic ink from Trans Tech America was then applied to the lens surface to provide the progressive marking.

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Between paragraph [035] and paragraph [036], please insert the following new heading:

Example

[036] Example 1: An example of one such useful ink is as follows, where the following percentages are by weight:

94% Mallaflex 2268 dispersion of titanium dioxide in a styrenated acrylic latex
(Mallard Ink)

5% Surfynol 104 acetylenic alcohol nonionic surfactant (Air Products and
Chemicals)

1% propylene glycol (Bayer)